

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 450 597 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

16.10.1996 Bulletin 1996/42

(51) Int. Cl.⁶: A61K 47/10, A61K 7/32,
A61K 7/48

(21) Application number: 91105258.7

(22) Date of filing: 03.04.1991

(54) Cosmetic gel stick compositions

Kosmetische Gelstiftzusammensetzungen

Compositions des bâtons gélifiés cosmétiques

(84) Designated Contracting States:
DE FR GB GR IT SE

(30) Priority: 04.04.1990 US 504497

(43) Date of publication of application:
09.10.1991 Bulletin 1991/41

(73) Proprietor: Bristol-Myers Squibb Company
New York, N.Y. 10156 (US)

(72) Inventors:

- Brazinksky, Judy
Kearny, New Jersey 07032 (US)
- Shin, Chung Teck
Livingston, New Jersey 07039 (US)

- Alonso, Richard
Livingston, New Jersey 07039 (US)
- Benfatto, Anthony
North Brunswick, New Jersey 08902 (US)

(74) Representative: Kinzebach, Werner, Dr. et al
Patentanwälte
Rekstötter, Kinzebach und Partner
Postfach 86 06 49
81633 München (DE)

(56) References cited:

EP-A- 0 107 330 EP-A- 0 291 334
US-A- 4 268 498

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

Field of Invention

This invention relates to gel stick compositions that are especially clear. More specifically, this invention concerns transparent gel stick compositions that are suitable for various cosmetic utilities, including that of a deodorant stick composition. Most specifically, the invention of the present application relates to transparent cosmetic stick compositions containing a branched chain alkoxyated emollient of limited solubility in water in combination with a water-soluble alkoxyated emollient.

Background of the Invention

Gelled compositions in stick form are well known and have been used for various cosmetic and pharmaceutical applications. The gel sticks should be of such firmness that a reasonable amount of active ingredients is applied when the stick is rubbed over the skin. Transparent gel stick compositions are also known and may be preferred by consumers, perhaps because they regard the clarity as an indication of product purity or performance.

Thus, U.S. Patent 4,759,924 (corresponding to EP-A-0 107 330) discloses cosmetic stick compositions comprising about 40-70% of a polyhydric aliphatic alcohol; about 3-10% soap; about 1-20% hydroalcoholic soluble emollient and water, the emollient having the formula $R(OC_3H_7)_a(OC_2H_5)_bOH$ wherein $a/(a+b) \leq 0.5$. Optionally, the compositions also may contain less than about 12.5% of a short chain monohydric alcohol such as ethanol and up to about 10%, preferably 1-5% of a water-insoluble emollient.

The water-insoluble emollients disclosed in the Luebbe patent are fatty esters, fatty ethers, alkoxyated fatty esters, fatty alcohols and low molecular weight silicone fluids. Typical materials include isopropyl palmitate, myreth-4, PEG-8-distearate, cetyl alcohol, dimethicone copolyol, cyclomethicone and dimethicone.

A clear stick formulation is also disclosed in de Navarre, The Chemistry and Manufacture of Cosmetics, Vol. IV, p. 697 (Second Edition 1975). The de Navarre composition contains 15% Pluronic F-127 (a polyoxyethylene, polyoxypropylene block copolymer); 7% sodium stearate; 68% propylene glycol and water. However, the de Navarre formulation does not contain a water-insoluble emollient. Moreover, the formulation of de Navarre is exceptionally hard.

Cosmetic gel stick compositions are also disclosed in GB 2,114,887, which compositions comprise 2-60% of an alkanol having 1-4 carbons; 2-50% of a diol having 4 carbons, and 2-15% soap, the composition having an average melting point of at least 50°C. The compositions of the GB '887 application may also contain an ethylene oxide and/or propylene oxide condensation product of the formula $H(C_2H_4O)_a(C_3H_5O)_bOR$ where R is either hydrogen or an alkyl group having from 1 to 20 carbons and a and b are each from 0 to 35, the sum of a + b not exceeding 35. There is no indication that the formulations of GB '887 are clear.

Gelled deodorant compositions are also disclosed in Appell, Cosmetics, Fragrances and Flavors, p. 62 (1982).

U.S. 4,268,498 discloses clear cosmetic sticks containing 2-5% polyoxyethylene (17-23)-glucose fatty acid ester; 2-5% polyoxyethylene (20-26) ether of a long chain alcohol; 24-72% polyoxypropylene (2-5) ether of a long chain alcohol; 5-8% sodium salt of a fatty acid; 5-10% propylene glycol; 5-10% lower alkyl ester of a fatty acid; 2-5% water, and 3-40% of a cosmetically active ingredient.

Aqueous gel compositions containing a water-insoluble pharmaceutically or cosmetically active organic ingredient employing as gelling agents certain polyoxyethylene/polyoxypropylene block copolymers are disclosed in U.S. 3,867,533. U.S. 4,089,814 discloses a roll-on perfume composition comprising per 100 parts by weight of composition, 5-15 parts essential oil; 25-40 parts alcohol; 20-40 parts certain polyoxyethylene-polyoxypropylene block copolymers, and 5-50 parts water.

A solid, transparent, gelled antiperspirant composition is disclosed in U.S. 4,154,816, the compositions containing a lower monohydric alcohol, a di- and/or trihydric alcohol and/or a lower polyglycol, a propylene-ethylene glycol polycondensate having the formula $HO(C_2H_4O)_x(C_3H_5O)_yH$ wherein $y/(x+y) = 0.6$ to 1 and have a molecular weight of at least 500; dibenzaldehydemonosorbitol acetal; an antiperspirant compound, and mono- or dialkylamide of a higher fatty acid.

Cosmetic stick compositions containing an active are also disclosed in U.S. 4,226,889, the compositions containing by weight 1-30 parts sodium stearate; 100 parts water and the active material. Preferably, the composition also contains a polyhydroxyl compound such as a glycol or polyglycol in an amount of from 0.5-10% by weight of the composition.

U.S. 4,346,079 discloses antiperspirant compositions containing dibenzaldehyde-monosorbitol acetal as a gelling agent and up to only about 10% of propylene-ethylene polycondensate. A solid antiperspirant stick composition is also disclosed in U.S. 4,425,328, the base compositions containing hydrophobic waxy matrixes including a volatile silicone emollient, the level of which may be reduced by incorporation of certain liquid polyoxypropylene-alkyl ethers.

U.S. Patents 4,382,079 and 4,440,742 disclose deodorant stick compositions containing a bicarbonate. In addition to the bicarbonate, the Marschner compositions contain a soap-based gel comprising 20-90% polyhydric alcohol gelled by about 2-15% of an alkali metal salt of a C_{14} - C_{20} saturated fatty acid. Other optional ingredients include soaps, emol-

lients and emulsifiers such as silicones, fatty esters, fatty amines, fatty alcohols, ethoxylated fatty alcohols and acids, thickeners and bacteriostats. The compositions of Marschner are said to be clear, notwithstanding the incorporation of the bicarbonate. Thus, the composition of Example 16 containing 8% potassium bicarbonate is reported to have similar appearance to the composition of Example 15, which has no bicarbonate.

5 Clear aqueous gels prepared from certain polyoxybutylene-polyoxyethylene block copolymers are disclosed in U.S. 4,465,663. Cosmetic sticks comprising polyhydric aliphatic alcohols, ethylene oxide and/or propylene oxide condensation products, and soap are disclosed in U.S. 4,504,465.

A nonstaining antiperspirant stick composition is disclosed in U.S. 4,511,554. Other antiperspirant/deodorant stick compositions are disclosed U.S. 4,524,062 and U.S. 4,720,381. Clear acid stable dibenzyl monosorbitol acetal gels are disclosed in U.S. 4,725,430. A transparent gel base is disclosed in GB 1,207,438, the composition comprising 47-75% of a mixture of alkylene oxide block polymers and fatty alcohol polyethylene glycol ethers and/or alkyl-phenol-polyethylene glycol ethers. Cosmetic gels are also disclosed in GB 2,020,974 A and GB 2,114,887 A.

A nonaqueous deodorant stick composition is disclosed in Canadian Patent 1,196,867.

EP-A-291 334 discloses an antiperspirant composition in the form of a gelled stick which is transparent and comprises by weight:

- (i) from 5 to 25 % of an aluminium salt with antiperspirant activity;
- (ii) from 10 to 40 % of a non-ionic surfactant;
- (iii) from 5 to 50 % of a liquid oil immiscible with water; and
- (iv) from 20 to 50 % water.

The non-ionic surfactants used in the antiperspirant composition are alkoxylated derivatives of compounds containing C₁₁-C₂₂ fatty alkyl hydrophobic groups, in particular polyoxyethylene and/or polyoxypropylene condensates of aliphatic carboxylic acids, incorporating from about 7 to about 40 ethylene oxide or propylene oxide units or polyoxyethylene and/or polyoxypropylene condensates of aliphatic alcohols incorporating from about 7 to 40 ethylene oxide and/or propylene oxide units.

Notwithstanding the array of prior art in the field of cosmetic compositions, the gel compositions designated as clear or translucent do not have the degree of clarity desirable in such products. Moreover, many of the prior art products tend to become cloudy or hazy after standing for a period of time. Typically, the haziness becomes progressively worse, so that after about a month or so the product is quite cloudy and can be said to have little or no transparency. Inasmuch as products such as these are often warehoused for one or more months subsequent to manufacture, the length of time the product retains at least the major portion of its transparency is an important characteristic.

Summary of the Invention

It is an object of the present invention to provide a clear gel stick composition suitable for use in cosmetic applications, especially deodorant products.

It is a further object of the present invention to provide such a stick composition that has a length of life in excess of about one month.

The cosmetic gel stick compositions of the present invention comprise from about 3 to about 8% soap; from about 1 to about 7% water soluble polyoxyalkylene ether of a fatty alcohol; from about 1 to about 5% polyoxyalkylene ether of a branched chain fatty alcohol, said ether having limited solubility in water; from about 10 to about 20% water, and from about 60 to about 80% aliphatic polyhydric alcohol having from 2 to 6 carbons and from 2 to 6 hydroxyl groups. The polyoxyalkylene ethers are functionally incorporated as emollients, and generally are polyoxyethylene ethers. In some instances, however, polyoxyethylene, polyoxypropylene ethers of fatty alcohols having less than about 20 mol percent polyoxypropylene based on the total mols of polyoxyalkylene might also be suitable.

Detailed Description of the Invention

The clarity of gel stick compositions has been found to be improved by incorporating into the composition an amount of a polyoxyethylene ether of a branched chain fatty alcohol effective to provide transparency, as defined below. The ether of the branched fatty alcohol is an emollient that has limited solubility in water, and is hereinafter referred to as the "water dispersible emollient." This designation, however, is not intended to rule out the use of materials typically categorized as water-insoluble, inasmuch as the terms "water-insoluble" and "water-dispersible" are not quantitatively exact. In this regard ample definition of the suitable ethers of branched fatty alcohols is provided below.

Suitable water-dispersible emollients are those polyoxyethylene ethers whose branched fatty alcohol moiety typically has from about 8 to about 22 carbon atoms. Preferably, the fatty alcohol moiety has 14 to 20 carbons, most preferably 18 carbons. The average number of ethylene glycol ether units is from 1 to about 6, preferably from 1½ to about 4, most preferably from about 2 to about 3. As the number of ethylene glycol ether repeating units increases, the mate-

rial will become increasingly dispersible in water. Accordingly, care must be used when using the water-dispersible emollients that have an average number of glycol ether units of about 4 and above. The preferred water-dispersible emollient is the polyoxyethylene ether of isostearyl alcohol having two ethylene glycol ether units, this material also being called Isosteareth-2 in the CTFA Cosmetic Ingredient Dictionary (Third Edition 1982). Using the CTFA nomenclature, other suitable materials are Isodeceth-4, Isodeceth-5, Isolaureth-3, Isosteareth-3, and Isosteareth-6.

The water-dispersible emollient is present in an amount of from about 1 to about 5%, preferably 2 to about 4% by weight of the composition. Its hydrophobic-lipophilic balance (HLB) is less than about 10-11, which is the region between water dispersibility and water solubility. Preferably, the HLB is between about 4 to about 9.

The second essential ingredient in the compositions of the present invention is a water-soluble emollient. Suitable water-soluble emollients are polyoxyethylene ethers of fatty alcohols having a sufficient number of ethylene glycol ether units to provide solubility. Preferably, these water-soluble emollients have in excess of an average of about 20 ethylene glycol ether units, most preferably in excess of 35 such units. The fatty alcohol moiety will have from about 8 to about 22 carbons, preferably from about 14 to about 18 carbons, most preferably 18 carbons. Especially suitable as the water-soluble emollient is polyoxyethylene ether of stearyl alcohol having 100 ethylene glycol ether units. The CTFA Dictionary nomenclature for this material is Steareth-100. Using the nomenclature of the CTFA Dictionary, other suitable materials are Ceteareths-20, 25, 30, 50 and 55; Ceteths-20, 25 and 45; Ceteleth-25; Laureths-25, 30 and 40; Oleths-25 and 50, and Steareths-20, 30, 40, 50 and 100. Polyoxyethylene, polyoxypropylene ethers of fatty alcohols having less than about 20 mol percent polyoxypropylene may also be suitable in some instances, the fatty alcohol moiety being as defined above. Also suitable are polyoxyethylene glycols having from about 20 to about 200 mole ethylene oxide per molecule. Typically, the HLB value of the water soluble emollient will be above about 12, preferably from about 15 to about 20.

The water-soluble emollient is present in an amount of from about 1 to about 7%, preferably from about 2 to about 5% by weight of the composition.

The compositions of the present invention also include an alkali metal fatty acid soap having preferably 14 to 22 carbon atoms per molecule, such as sodium stearate, sodium laurate, sodium myristate, palmitate, and potassium cocoate. The soaps are contained in the composition of the present invention in an amount of from about 3 to about 8%, preferably from about 4 to about 6% of the weight of the composition.

An organic solvent is also an essential ingredient of the subject invention. The solvent of choice is propylene glycol, although other polyhydric aliphatic alcohols having from 2 to 6 carbons, preferably 2 or 3 carbons, may be used. In addition to propylene glycol, ethylene glycol, glycerin and sorbitol are suitable. The organic solvent is present in an amount of from about 60 to about 90%, preferably from about 70 to about 85% by weight of the composition.

The last essential constituent is water, which is present in an amount of from 10 to about 20%, preferably from about 12 to about 18% by weight of the composition.

The compositions of the present invention are transparent to the transmission of light. By transparent is meant that sufficient light passes through the gel sticks of the present invention to enable an observer to see without difficulty an image, e.g., lettering, placed at the rear of the gel stick. Generally, gel sticks in accordance with the present invention will transmit more than 40% of the light passed through, the percentage of light transmission being obtained by the procedure set forth in Example 1.

Preferably, more than 50% of the light will pass through using the protocol of Example 1. Most preferably, 60% or more of the light will pass through, such products being exceptionally clear. Moreover, the gel sticks of the present invention remain transparent for a reasonable period of time, typically at least about one month at room temperature preferably for at least three months at room temperature.

In addition to clarity, the products of the present invention must have sufficient hardness so that they may be applied without damage to the stick. On the other hand, a sufficient amount of the composition must adhere to the skin when the stick composition is used on skin. Typically, the stick compositions of the present invention will have a hardness of from about 2 to about 6, preferably from about 2.5 to about 4.5, as measured on a Chatillon Gauge, Model No. DPP-5, at a speed setting where the product being tested is propelled upwards at a speed of 3 cm/min. The product stick is then raised one inch above the top of its package and centered under the cutter along the longitudinal axis of the ellipse. A cut of 30 seconds is made, and the hardness reading from the gauge is obtained.

Adjuvants include coloring agents, fragrance agents, and bacteriocides. Each of these adjuvants is included in an amount suitable to obtain its requisite function, typically less than about 1% by weight of the composition. Suitable coloring agents are the FD&C grade dyes such as FD&C Blue #1 and FD&C Yellow #5. The dye is typically present in the range of from about 0.01 to 1%, preferably 0.01 to 0.1% by weight. The dye concentration, however, should not be so high as to render the product opaque. Emollients, preferably an alkyl ester of a fatty acid, the alkyl group having from 2 to 6 carbon atoms, such as isopropyl stearate, isopropyl myristate, isobutyl myristate and the like may be included at low levels, typically less than about 1% by weight of the composition, to improve feel properties. The compositions of the present invention may also include a deodorant material. Suitable deodorant materials include bacteriostatic quaternary ammonium compounds such as cetyltrimethyl ammonium bromide, cetylpyridinium chloride, di-isobutyl phenoxyethoxy ethyl dimethyl benzyl ammonium chloride, N-alkylpyridinium chloride, sodium N-lauroyl sarcosinate;

stearyltrimethyl ammonium chlorid and 2,4,4'-trichloro-2'-hydroxydiphenyl ether, known as Triclosan, the latter being preferably present in an amount of from about 0.1 to about 1% by weight of the composition. Deodorants, if present, are generally included in an amount of from about 0.05 to about 1% by weight of the composition.

Low levels, less than 12.5%, preferably less than 5%, by weight of the composition of a low molecular weight alcohol may be also incorporated, e.g., ethanol.

Particularly preferred is a clear cosmetic gel base consisting essentially of 70-85 % propylene glycol; 2-5 % polyoxyethylene ether of stearic alcohol having in excess of 35 ethylene glycol ether units; 4-6 % polyoxyethylene ether of isostearic alcohol having 2-3 ethylene glycol ether units; 4-6 % sodium or potassium soap of a fatty acid having 14-20 carbons, and 12-18 % water.

The compositions of the present invention are made by admixing the various ingredients together in the liquid state, materials otherwise solid at room temperature being melted before, during or after addition, pouring the liquid mixture into a mold, and thereafter allowing the admixture to solidify.

The gel sticks are used by the consumer by rubbing the gel stick on the area of the body where application of the actives is desired. A deodorant stick, for example, is used by applying the stick to the axilla area to apply the deodorant agent.

The benefits of the compositions of the present invention are demonstrated in the examples below, which are not intended to be limiting. Unless otherwise indicated, all concentrations are on a weight basis and all ingredients are identified on a 100% actives basis.

20 Example 1

The compositions set forth in Table I were prepared by first heating the propylene glycol to 180-200°F after which the Steareth-100 was added, with mixing, followed by the addition with mixing of the stearate soap and the water. After cooling slightly, the insoluble emollient is added, followed by further cooling, to about 60-65.5°C (140-150°F). The remaining ingredients are then added, and the batch is cooled slightly, poured into containers, and cooled to room temperature.

TABLE I

| Constituent | Concentration (wt. %) | | |
|-------------------------------|-----------------------|-------|-------|
| | A | B | C |
| Propylene glycol | 73.05 | 73.05 | 73.05 |
| Sodium stearate | 4.0 | 4.0 | 4.0 |
| Steareth-100 ^{(1)*} | 5.0 | 5.0 | 5.0 |
| Isosteareth-2 ^{(2)*} | - | 3.0 | - |
| Steareth-2 ^{(3)*} | - | - | 3.0 |
| Deionized water | 13.5 | 13.5 | 13.5 |
| Triclosan | 0.25 | 0.25 | 0.25 |
| Perfume | 1.0 | 1.0 | 1.0 |
| FD&C Blue No. 1 (0.1% sol'n) | 0.2 | 0.26 | 0.2 |
| TOTAL | 100.0 | 100.0 | 100.0 |

*CTFA nomenclature.

⁽¹⁾Polyethylene glycol ether of stearyl alcohol having 100 moles ethylene oxide per molecule. Water-soluble emollient having an HLB of about 18.8. Available as Brij 700 from ICI Americas, Inc.

⁽²⁾Polyethylene glycol ether of isostearyl alcohol having 2 moles ethylene oxide per molecule. Water-insoluble emollient having an HLB of about 4.6. Available as Arosurf 66-E2 from Sherex Chemical Co.

⁽³⁾Polyethylene glycol ether of stearyl alcohol having 2 moles ethylene oxide per molecule. Water-insoluble emollient having an HLB of about 4.9. Available as Brij 72 from ICI Americas, Inc.

The Compositions A, B and C were evaluated for clarity by measuring the amount of light transmission through the gel product. The percent transmission varies with the wavelength of light. The wavelengths that define the range of minimum and maximum light transmission depends on the presence or absence of a dye in the gel stick, and the concentration of the dye if present. Thus, a colorless product would be expected to transmit more light than a dye-containing product. The percent light transmission also depends on the color of the dye. For the Compositions A, B and C, which contain a blue dye, the highest percent transmission occurring at about 800 nm and the lowest at about 400 nm. An intermediate wavelength of 600 nm was used in measuring light transmission, in accordance with the following procedure: 40 grams of molten composition was poured into a petri dish (Thomas Petri dish, 100 mm diameter x 15 mm deep) and allowed to cool and solidify at room temperature overnight. A spectral scan from 400 nm to 800 nm was taken and the transmission at 600 nm was measured.

For Composition A, which does not contain any water-insoluble emollient, the average transmission light was 9.15%. For Composition B, within the scope of the present invention and containing 3% Isosteareth-2, the average transmission of light was 73.95%. For Composition C, which is outside the scope of the present invention in that it contains a linear chain water-insoluble emollient, the average light transmission was 0.17%.

Example 2

Composition B was evaluated for stability. The composition in its molten state was poured into a conventional deodorant stick container and then stored under various conditions as reported below.

| Test Conditions | Observed Clarity |
|-----------------------------|------------------------|
| 0°C (32°F) (1 Month) | Slight loss in clarity |
| Freeze/Thaw (5 cycles) | Slight loss in clarity |
| Room Temperature (3 months) | Crystal clear |
| 40°C (104°F) (3 months) | Crystal clear |
| 46°C (115°F) (1 month) | Some haze at core |

15 Claims

1. A transparent cosmetic gel stick composition comprising by weight of the composition:

a) about 60 to about 90 % of an aliphatic polyhydric alcohol having from 2 to 6 carbons and from 2 to 6 hydroxyl groups;

b) about 3 to about 8 % soap;

c) about 1 to about 7 % of a water-soluble emollient selected from the group consisting of polyoxyethylene ethers of fatty alcohols, polyoxethylene, polyoxypropylene ethers of fatty alcohols having less than 20 mol per cent polyoxypropylene based on the total moles of polyoxyalkylene, and polyoxyethylene glycols having 20 to 200 moles ethylene oxide, the fatty alcohol moiety having from about 8 to about 22 carbons and the average number of alkylene glycol ether units being at least about 20;

d) about 1 to about 5 % of a water-dispersible emollient that is a polyoxyethylene ether of a branched chain fatty alcohol, the fatty alcohol moiety having from about 8 to about 22 carbons and the average number of ethylene glycol ether units being from 1 to about 6; and

e) about 10 to about 20 % water.

2. The composition of Claim 1 wherein the water-dispersible emollient is a polyoxyethylene ether of a fatty alcohol having an average of from 1½ to about 4 ethylene glycol ether units.

3. The composition of Claim 2 wherein the fatty alcohol moiety of the water-dispersible emollient has 14 to 20 carbons.

4. The composition of Claim 3 wherein the water-soluble emollient is a polyoxyethylene ether of a fatty alcohol having in excess of 35 ethylene glycol ether units.

5. The composition of Claims 2 or 4 wherein the water-dispersible emollient is present in an amount of from about 2 to about 4% by weight of the composition.

6. The composition of Claim 5 wherein the water-soluble emollient is a polyoxyethylene ether of a fatty alcohol having about 100 ethylene glycol ether units.

7. The composition of Claim 6 wherein the water-soluble emollient is present in an amount of from about 2 to about 5% by weight of the composition.

8. The composition of any one of the preceding claims wherein the polyhydric alcohol is propylene glycol, which is present in an amount of from about 70 to about 85 %.

9. The composition of Claim 5 wherein the polyhydric alcohol is propylene glycol, which is present in an amount of from about 70 to about 85 %.

10. The composition of any one of the preceding claims wherein the soap is an alkali metal fatty acid soap having from 14 to 22 carbon per molecule.
11. The composition of Claim 10 wherein the soap is present in an amount of from about 4 to about 6 % by weight of the composition.
12. The composition of any one of the preceding claims further containing a bacteriostat in an amount of from about 0.05 to about 1 % by weight of the composition.
13. The composition of Claim 12 wherein the bacteriostat is 2,4,4'-trichloro-2'-hydroxydiphenyl ether present in an amount of from about 0.1 % to about 1 % by weight of the composition.
14. The composition of any one of the preceding claims further comprising at least one of the following adjuvants: coloring agents and fragrance agents, said adjuvants being included in an amount sufficient to provide the intended function.
15. The composition of any one of the preceding claims further comprising less than about 1 % of an emollient that is an alkyl ester of a fatty acid, the alkyl group having from 2 to 6 carbons.
16. The composition of Claim 15 wherein the alkyl ester is selected from the groups consisting of isopropyl stearate, isopropyl myristate, and isobutyl myristate.
17. The composition of any one of the preceding claims further comprising up to about 12.5 % of a short chain monohydric alcohol.
18. A clear cosmetic gel base consisting essentially of 70-85 % propylene glycol; 2-5 % polyoxyethylene ether of stearic alcohol having in excess of 35 ethylene glycol ether units; 4-6 % polyoxyethylene ether of isostearic alcohol having 2-3 ethylene glycol ether units; 4-6 % sodium or potassium soap of a fatty acid having 14-20 carbons, and 12-18 % water.
19. The composition of Claim 18 further comprising a bacteriostat in an amount of from about 0.1 to about 1% by weight of the composition.

Patentansprüche

1. Transparente, kosmetische Gelstiftzusammensetzung, umfassend, bezogen auf das Gewicht der Zusammensetzung:
 - a) etwa 60 bis etwa 90 % eines aliphatischen Polyalkohols mit 2 bis 6 Kohlenstoffatomen und 2 bis 6 Hydroxylgruppen;
 - b) etwa 3 bis etwa 8 % Seife;
 - c) etwa 1 bis etwa 7 % eines wasserlöslichen Emolliens, das ausgewählt ist unter Fettalkohol-Polyoxyethylenethern, Polyoxyethylen, Fettalkohol-Polyoxypropylenethern mit weniger als 20 Mol-% Polyoxypropylen, bezogen auf die gesamte Molzahl an Polyoxyalkylen, und Polyoxyethylenglykolen mit 20 bis 200 Mol Ethylenoxid, wobei die Fettalkohol-Einheit 8 bis 22 Kohlenstoffatome aufweist und die durchschnittliche Anzahl der Alkylenglykoether-Einheiten wenigstens etwa 20 beträgt;
 - d) etwa 1 bis etwa 5 % eines wasserdispergierbaren Emolliens, bei dem es sich um einen Polyoxyethylenether eines verzweigten Fettalkohols handelt, wobei die Fettalkohol-Einheit 8 bis 22 Kohlenstoffatome aufweist und die durchschnittliche Anzahl der Alkylenglykoether-Einheiten 1 bis etwa 6 beträgt; und
 - e) etwa 10 bis etwa 20 % Wasser.
2. Zusammensetzung nach Anspruch 1, worin das wasserdispergierbare Emolliens ein Polyoxyethylenether eines Fettalkohols mit durchschnittlich 1½ bis etwa 4 Ethylenglykoether-Einheiten ist.

3. Zusammensetzung nach Anspruch 2, worin die Fettalkohol-Einheit des wasserdispergierbaren Emolliens 14 bis 20 Kohlenstoffatome aufweist.
4. Zusammensetzung nach Anspruch 3, worin das wasserlösliche Emolliens ein Polyoxyethylenether eines Fettalkohols mit mehr als 35 Ethylenglykoether-Einheiten ist.
5. Zusammensetzung nach Anspruch 2 oder 4, worin das wasserdispergierbare Emolliens in einer Menge von etwa 2 bis etwa 4 Gew.-% der Zusammensetzung vorliegt.
6. Zusammensetzung nach Anspruch 5, worin das wasserlösliche Emolliens ein Polyoxyethylenether eines Fettalkohols mit etwa 100 Ethylenglykoether-Einheiten ist.
7. Zusammensetzung nach Anspruch 6, worin das wasserlösliche Emolliens in einer Menge von etwa 2 bis etwa 5 Gew.-% der Zusammensetzung vorliegt.
8. Zusammensetzung nach einem der vorhergehenden Ansprüche, worin der Polyalkohol Propylenglykol ist und in einer Menge von etwa 70 bis etwa 85 % vorliegt.
9. Zusammensetzung nach Anspruch 5, worin der Polyalkohol Propylenglykol ist und in einer Menge von etwa 70 bis etwa 85 % vorliegt.
10. Zusammensetzung nach einem der vorhergehenden Ansprüche, worin die Seife eine Alkalimetall-Fettsäure-Seife mit 14 bis 22 Kohlenstoffatomen pro Molekül ist.
11. Zusammensetzung nach Anspruch 10, worin die Seife in einer Menge von etwa 4 bis etwa 6 Gew.-%, bezogen auf das Gewicht der Zusammensetzung, vorliegt.
12. Zusammensetzung nach einem der vorhergehenden Ansprüche, welche zusätzlich ein Bakteriostatikum in einer Menge von etwa 0,05 bis etwa 1 Gew.-%, bezogen auf das Gewicht der Zusammensetzung, enthält.
13. Zusammensetzung nach Anspruch 12, worin das Bakteriostatikum 2,4,4'-Trichlor-2'-hydroxydiphenylether ist und in einer Menge von etwa 0,1 bis etwa 1 Gew.-%, bezogen auf das Gewicht der Zusammensetzung, vorliegt.
14. Zusammensetzung nach einem der vorhergehenden Ansprüche, welche zusätzlich wenigstens eines der folgenden Adjuvanzien umfaßt: Farb- und Duftstoffe, wobei die Adjuvanzien in einer zur Gewährleistung der beabsichtigten Funktion ausreichenden Menge enthalten sind.
15. Zusammensetzung nach einem der vorhergehenden Ansprüche, welche zusätzlich weniger als etwa 1 % eines Emolliens enthält, bei dem es sich um einen Alkylester einer Fettsäure handelt, wobei die Alkylgruppe 2 bis 6 Kohlenstoffatome besitzt.
16. Zusammensetzung nach Anspruch 15, worin der Alkylester ausgewählt ist unter Isopropylstearat, Isopropylmyristat und Isobutylmyristat.
17. Zusammensetzung nach einem der vorhergehenden Ansprüche, welche zusätzlich bis zu etwa 12,5 % eines kurzkettigen, einwertigen Alkohols umfaßt.
18. Klare kosmetische Gelbasis, im wesentlichen bestehend aus 70-85 % Propylenglykol, 2-5 % Polyoxyethylenether des Stearinalkohols mit mehr als 35 Ethylenglykoether-Einheiten, 4-6 % Polyoxyethylenether des Isostearinalkohols mit 2-3 Ethylenglykoether-Einheiten, 4-6 % Natrium- oder Kaliumseife einer Fettsäure mit 14-20 Kohlenstoffatomen und 12-18 % Wasser.
19. Zusammensetzung nach Anspruch 18, die zusätzlich ein Bakteriostatikum in einer Menge von etwa 0,1 bis etwa 1 Gew.-%, bezogen auf die Zusammensetzung, umfaßt.

Revendications

1. Composition de bâtonnet de gel cosmétique transparent comprenant en poids de la composition :

- a) environ 60 à environ 90% d'un alcool polyhydrique aliphatique ayant de 2 à 6 carbones et de 2 à 6 groupes hydroxyles;
- b) environ 3 à environ 8% de savon;
- 5 c) environ 1 à environ 7% d'un émoullient soluble dans l'eau choisi dans le groupe consistant des polyoxyéthylène éthers d'alcool gras, du polyoxyéthylène, des polyoxypropylène éthers d'alcool gras ayant moins de 20% en moles de polyoxypropylène sur la base des moles totales de polyoxyalkylène, et des polyoxyéthylène glycols ayant 20 à 200 moles d'éthylène oxyde, la moitié alcool gras ayant d'environ 8 à environ 22 carbones et le nombre moyen d'unités alkylène glycol éther étant d'au moins environ 20;
- 10 d) environ 1 à environ 5% d'un émoullient dispersable dans l'eau qui est un polyoxyéthylène éther d'un alcool gras à chaîne ramifiée, la moitié alcool gras ayant d'environ 8 à environ 22 carbones et le nombre moyen d'unités éthylène glycol éther étant de 1 à environ 6; et
- e) environ 10 à environ 20% d'eau.
2. Composition selon la revendication 1 dans laquelle l'émoullient dispersable dans l'eau est un polyoxyéthylène éther d'un alcool gras ayant une moyenne de $1\frac{1}{2}$ à environ 4 unités éthylène glycol éther.
 3. Composition selon la revendication 2 dans laquelle la moitié alcool gras de l'émoullient dispersable dans l'eau a 14 à 20 carbones.
 - 20 4. Composition selon la revendication 3 dans laquelle l'émoullient soluble dans l'eau est un polyoxyéthylène éther d'un alcool gras ayant en excès de 35 unités éthylène glycol éther.
 5. Composition selon la revendication 2 ou la revendication 4 dans laquelle l'émoullient dispersable dans l'eau est présent en une quantité d'environ 2 à environ 4% en poids de la composition.
 - 25 6. Composition selon la revendication 5 dans laquelle l'émoullient soluble dans l'eau est un polyoxyéthylène éther d'un alcool gras ayant environ 100 unités éthylène glycol éther.
 7. Composition selon la revendication 6 dans laquelle l'émoullient soluble dans l'eau est présent en une quantité d'environ 2 à environ 5% en poids de la composition.
 - 30 8. Composition selon l'une quelconque des revendications précédentes dans laquelle l'alcool polyhydrique est le propylène glycol, qui est présent en une quantité d'environ 70 à 85%.
 - 35 9. Composition selon la revendication 5 dans laquelle l'alcool polyhydrique est le propylène glycol, qui est présent en une quantité d'environ 70 à environ 85%.
 10. Composition selon l'une quelconque des revendications précédentes dans laquelle le savon est un savon d'un métal alcali d'acide gras ayant de 14 à 22 carbones par molécule.
 - 40 11. Composition selon la revendication 10 dans laquelle le savon est présent en une quantité d'environ 4 à environ 6% en poids de la composition.
 12. Composition selon l'une quelconque des revendications précédentes contenant de plus un bactériostat en une quantité d'environ 0,05 à environ 1% en poids de la composition.
 - 45 13. Composition selon la revendication 12 dans laquelle le bactériostat est le 2,4,4'-trichloro-2'-hydroxydiphényl éther présent en une quantité d'environ 0,1% à environ 1% en poids de la composition.
 - 50 14. Composition selon l'une quelconque des revendications précédentes comprenant de plus au moins l'un des adjuvants suivants :
agents colorants et agents de parfum, lesdits adjuvants étant inclus en une quantité suffisante pour procurer la fonction voulue.
 - 55 15. Composition selon l'une quelconque des revendications précédentes comprenant de plus moins d'environ 1% d'un émoullient qui est un alkyl ester d'un acide gras, le groupe alkyle ayant de 2 à 6 carbones.
 16. Composition selon la revendication 15 dans laquelle l'alkyl ester est choisi dans le groupe consistant de l'isopropyl stéarate, de l'isopropyl myristate, et de l'isobutyl myristate.

17. Composition selon l'une quelconque des revendications précédentes comprenant de plus jusqu'à environ 12,5% d'un alcool monohydrique à chaîne courte.

5 18. Base de gel cosmétique transparent consistant essentiellement de 70 à 85% de propylène glycol; de 2 à 5% de polyoxyéthylène éther d'alcool stéarique ayant en excès de 35 unités éthylène glycol éther; de 4 à 6% de polyoxyéthylène éther d'alcool isostéarique ayant 2 à 3 unités éthylène glycol éther; de 4 à 6% de savon sodium ou potassium d'un acide gras ayant 14 à 20 carbones, et de 12 à 18% d'eau.

10 19. Composition selon la revendication 18 comprenant de plus un bactériostat en une quantité d'environ 0,1 à environ 1% en poids de la composition.

15

20

25

30

35

40

45

50

55